EFFECTS OF PRENATAL EXPOSURE TO OPIATES, ALCOHOL OR OTHER DRUGS

Experts now estimate that one-half to three-quarters of a million infants are born each year who have been exposed to one or more illicit drugs in utero. When the legal drugs—alcohol and tobacco—are added, the figure rises to considerably more than one million substance exposed infants.

Although prenatal drug exposure has captured a great deal of public attention, prenatal exposure to alcohol is more widespread and has perhaps an even more serious impact. The National Institute on Drug Abuse estimates that 60 percent of women of childbearing age consume alcoholic beverages despite the fact that alcohol consumption during pregnancy is implicated in a wide range of birth defects and developmental disabilities, including mental retardation, physical abnormalities, and visual and auditory impairments.

Estimates of the Extent of Prenatal Exposure to Alcohol and Other Drugs

Prevalence estimates vary. One study estimates that 11 percent of all newborns, more than 459,690 children born each year, have been exposed to illicit drugs. Another study estimates that more than 739,000 women each year use one or more illegal substances during a pregnancy.

The dramatic increase in the popularity of cocaine (and especially crack) during the late 1980s prompted much of the contemporary concern with prenatal drug exposure. Estimates of the percentage of children born prenatally exposed to cocaine (including crack) each year range from 1 to 4.5 percent. Using these rates, it is estimated that women give birth to between 41,790 and 188,055 children each year who were exposed to cocaine. (Unless otherwise noted, National Center for Health Statistics estimates of live births for 1990 provide the basis for all statistical extrapolations.)

Despite the growing use of cocaine, marijuana remains the most widely used illicit drug. Rates of newborns prenatally exposed to marijuana have been estimated at levels from 3 to almost 20 percent, which would indicate that every year women give birth to between 125,370 and 835,800 children prenatally exposed to marijuana.

Prenatal exposure to alcohol far exceeds that of illicit drugs. One study estimates that women give birth to more than 2.6 million infants exposed to alcohol each year. Fetal Alcohol Syndrome (FAS) annually affects between 1.3 and 2.2 children per 1,000 live births in North America. Researchers estimate that cases of Alcohol-Related Birth Defects (ARBD) exceed those of FAS by a ratio of 2:1 to 3:1. This would indicate that women in the U.S. annually give birth to between 16,548 and 22,064 children exhibiting the effects of prenatal exposure to alcohol.

Other evidence also indicates that the number of children born exposed to alcohol and other drugs is high.

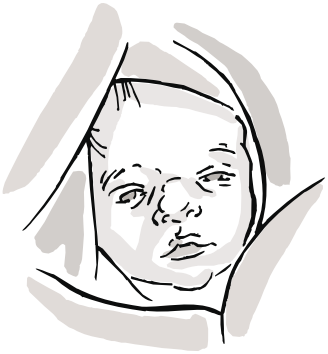
- 4.5 million (7.7 percent) of the women of childbearing age in the U.S. have used an illicit drug in the past month, including 601,000 cocaine users and 3.3 million who have used marijuana. Many more are heavy drinkers.
- Childbearing-age women comprise the majority of women who use drugs.
- Women who use illicit drugs other than marijuana have a premarital pregnancy rate twice that of those who do not.
- The majority of women entering drug treatment programs have children.

Research on a woman's consumption of alcohol and other drugs, once she knows she is pregnant, is inconclusive. Factors such as substance, age, socioeconomic status, and the presence of prenatal care may all affect consumption. Researchers found that, while the overall rate of women who drink during pregnancy declined during the mid-1980s, the rate among less-educated women or those under the age of 25 remained the same.

Effects of Prenatal Exposure to Opiates

While the "crack epidemic" has drawn public attention away from other drugs, heroin remains a widespread social problem. Prenatal heroin exposure is associated with:

- preterm delivery
- miscarriages
- smaller-than-normal head size and low birthweight
- meconium staining



Some evidence associates heroin with an increased risk for SIDS.

The majority of babies born to women addicted to heroin (or on methadone maintenance) suffer from neonatal abstinence syndrome. This condition includes neurologic signs (hypertonia, tremors, sleep disturbances, seizures), autonomic nervous system dysfunctions, gastrointestinal abnormalities, and respiratory problems.

Some long-term studies indicate that children prenatally exposed to heroin suffer from below-average weight and length, adjustment problems, and psycholinguistic and other ability deficits through six years of age and, possibly through age 10.

However, as with much of the research on prenatal drug exposure, many of the cognitive and behavioral effects could result from confounding environmental influences. In general, infants of opiate-addicted women are known to have a number of behavioral disturbances early in life, but lasting cognitive-developmental differences have not regularly been found.

Studies of prenatal methadone exposure report some association with initial developmental deficits. Researchers have not identified consistent long-term effects of prenatal methadone exposure and speculate that these effects largely depend on a combination of biologic and environmental factors. Methadone maintenance programs result in improved birth outcomes for addicted women. Such programs often include improved prenatal and medical care, as well as improved maternal nutrition, which suggests that some of the consequences of prenatal opiate exposure result from a lack of prenatal care and poor maternal health rather than represent a direct effect of the drug.

Use of Alcohol and Other Drugs During Pregnancy

- Alcohol produces by far the most serious neurobehavioral effects in the fetus when compared to other drugs including heroin, cocaine and marijuana. (Institute of Medicine Report to Congress)
- Over three times as many women used alcohol during pregnancy than used illegal drugs. (National Institute on Drug Abuse, 1994)
- In the first nationally representative survey of drug use among pregnant women, 20.4 percent or 820,000 women reported smoking cigarettes; 18.8 percent or 757,000 women reported drinking alcohol; and 5.5 percent, or 221,000 women, used an illicit drug at least once (HHS, National Institute on Drug Abuse {NIDA}, National Pregnancy and Health Survey, NIH Publication No. 96-3819, 1996, p. xxi-xxii).
- At least one of every five pregnant women uses alcohol and/or other drugs. (Substance Abuse and the American Woman, Center on Addiction and Substance Abuse, Columbia University, June 5, 1996)
- Black women had significantly higher rates than white women for use of any illicit drug and cocaine, and significantly higher rates than Hispanic women for use of any illicit drug and marijuana. However, the estimated number of white women using any illicit drug or marijuana was substantially greater than the number in other race/ethnic groups. In comparing differences in illicit drug use among age groups, the rates of crack cocaine use in women ages 25-29 and 30 and older were significantly higher than the rate for those under age 25. Differences by age within race/ethnic groups appeared to vary by drug, but the statistical significance of these differences was not determined. (National Pregnancy and Health Survey, op. cit., p. xxi-xxii).
- Estimates show 40,000 to 75,000 drug-exposed babies (1 to 2 percent of live births) to 375,000 (11 percent) are born each year. These numbers reflect maternal use of illicit drugs only and would be much larger if alcohol and nicotine were included (Cook, op. cit. p. 3).
- Growth disturbances and other behavioral effects such as hyperactivity, shortened attention spans, temper tantrums, slowed psychomotor development, and impaired visual motor functioning have been noted in infants and older children born to opiate-dependent mothers (Ibid., p. 39).

- Dramatic withdrawal symptoms are the most frequently observed consequence to newborns from prenatal narcotics exposure. Restlessness, tremulousness, disturbed sleep and feeding, stuffy nose, vomiting, diarrhea, a high-pitched cry, fever, irregular breathing, or seizures usually start within 48-72 hours. The heroin-exposed infant also sneezes, twitches, hiccups, and weeps. Occasionally, these symptoms do not begin until 2-4 weeks after delivery. This irritability, resulting from overarousal of the central nervous system, usually ends after a month, but can persist for 3 months or more (Cook, op. cit., pp. 37-38).
- Newborns with perinatal alcohol and other drug exposure have hospital stays three times longer than those born to mothers who are drug-free (National Center on Addiction & Substance Use at Columbia University, The Cost of Substance Abuse to America's Health Care System, Report 1: Medicaid Hospital Costs, 1993, p. 40).

References

Educational Implications of Prenatal Exposure to Drugs, RISK AND REALITY: THE IMPLICATIONS OF PRENATAL EXPOSURE TO ALCOHOL AND OTHER DRUGS, Joanne P. Brady, Marc Posner, Cynthia Lang and Michael J. Rosati, The Education Development Center, Inc. 1994. U.S. Department of Health and Human Services (DHHS) and the U.S. Department of Education (ED).
What is Fetal Alcohol Syndrome? National Organization on Fetal Alcohol Syndrome, http://www.nofas.org/stats.htm. Original Source: http://aspe.hhs.gov/hsp/cyp/drugkids.htm .

FAS FACTS: Basic Facts About Fetal Alcohol Syndrome and Related Conditions, FAS Community Resource Center, Tucson, Arizona, http://www.come-over.to/FASCRC.

Alcohol- and Other Drug-Related Birth Defects, National Council on Alcoholism and Drug Dependence, Inc. (NCADD), http://www.ncadd.org/defects.html .

This brochure was produced by
the Nebraska Council to Prevent Alcohol and Drug Abuse.

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402-474-0930
-or-
Community Health Plaza
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402-572-3075

Printed May 2001.

The Council is funded through individual, corporate and foundation support, and with state and federal funds through the Department of Health and Human Services, State of Nebraska.

Member of CHAD

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NATIONAL COUNCIL ON ALCOHOLISM AND DRUG DEPENDENCE, INC.

NEBRASKA RESOURCE DIRECTORY

Community Resources and Family Support Groups

Trudy House, Parent
514 E 9th Street, Hastings, Nebraska 68901
402-463-7175 thouse@inebraska.com

Diagnosis of FAS/E and ARND

UNMC - Munroe-Meyer Institute for Genetics and Rehabilitation
985450 NBC, Omaha, NE 68198-5450 | 402-559-6400; Fax: 402-559-5737
Bruce Buehler, M.D. Ann Olney, M.D. bbuehler@unmc.edu

University of Nebraska Medical Center - Department of Genetics
985430 NMC, Omaha, NE 68198-5430 | 402-449-6800; Fax: 402-559-6688
G. Bradley Schaeffer, M.D. gbschael@unmc.edu
The Department runs genetics clinics for screening and diagnosis at several sites around Nebraska.

Pediatric and Medical Genetics Services-Michael Schmidt, M.D., Ph.D.
7111 A Street, Suite 100, Lincoln, NE 68510
402-484-5437; Fax: 402-484-5438

Creighton University Medical School - Department of Psychiatry
3528 Dodge, Omaha, NE 68108 | 402-345-8828; Fax: 402-345-8815
Shashi Bhatia, M.D.

Other Resources

Fetal Alcohol Syndrome Education Program
4009 6th Ave Ste 18, Kearney, NE 68845 | 308-234-2754; Fax 308-237-2146
We provide educational programs on Fetal Alcohol Syndrome aimed at prevention in a 22 county wide area. Other services available please contact for more information.

Nebraska Advocacy Services, Inc.
522 Lincoln Center Building, 215, Lincoln, NE 68508
402-474-3183; Toll free (NE): 800-422-6691; Fax: 402-474-3274
nas@navix.net
Protection and advocacy agency for persons with developmental disabilities.

Prevention Programs, Including Treatment for Women

Nebraska Teratogen Information Service
985440 Nebraska Medical Center, Omaha, NE 688198-5440 | 402-559-5071
Information on teratogens for patients and health professionals in the Midwest.

Nebraska Department of Health - Perinatal and Child Health Program
301 Centennial Mall S, P O Box 95044, Lincoln, NE 68509
402-471-2907; Fax: 402-471-7049 http://www.hhs.state.ne.us/
Judy Schlife, R.N., Administrator
Coordinates prevention services and children's primary health care in Nebraska.

Treatment Services for Affected Individuals

St. Monica's Home - Mother and Child Project
4600 Valley Road, Suite 250, Lincoln, NE 68510
402-441-3768; Fax: 402-441-3770 stmonica@navix.net
Residential treatment program for substance abusing pregnant and/or parenting women.

Intertribal Treatment Program - Nebraska Urban Indian Health Coalition, Inc.
2301 S 15th Street, Omaha, NE 68108 | 402-346-0902; Fax: 402-342-5290
Charles Brewer, Director
45-day inpatient chemical dependency treatment. Patients must be Indians from Nebraska, Iowa, North Dakota or South Dakota. Pregnant patients are accepted but there are no beds for infants or young children.

Drug Dependency Unit (part of the Indian Health Service in Nebraska)
P O Box 754, Winnebago, NE 68071 | 402-878-2874; Fax: 402-878-2429
Robert Hallowell, Director
Hospital-based treatment program for American Indians (women or men) from Nebraska, Iowa, Montana and South Dakota. Pregnant patients are welcome. Mothers with young children are able to house them through local social agencies.

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